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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/747,592	12/22/2000	Debra Kay Steiger	P04782US0 PHI 1353	8235

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EXAMINER

MEHTA, ASHWIN D

ART UNIT	PAPER NUMBER
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1638

DATE MAILED: 01/16/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/747,592

Applicant(s)

STEIGER ET AL.

Examiner

Ashwin Mehta

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 29 October 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-58 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-5, 7, 11, 13, 14, 25-27, 33, 35 and 36 is/are allowed.
- 6) ☒ Claim(s) 6, 8-10, 12, 15-23, 28-32, 34 and 37-57 is/are rejected.
- 7) ☒ Claim(s) 24 and 58 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

1. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
2. The objection to claims 1, 7, 29, and 46 is withdrawn, in light of the claim amendments.
3. The rejection of claims 10, 12, 15-22, 32, 34, 37-49 under the judicially created doctrine of obviousness-type double patenting is withdrawn, in light of the claim amendments.
4. The rejection of claims 1-49 under 35 U.S.C. 112, 2nd paragraph in the Office action mailed 29 July 2002 under item 10 is withdrawn in light of the claim amendments.
5. The rejection of claims 1-49 under 35 U.S.C. 112, 1st paragraph in the Office action mailed 29 July 2002 under item 13 is withdrawn in light of the claim amendments.

Claim Objections

6. Claims 24 and 58 are objected to under 37 CFR 1.75 (b) as being duplicate claims. Both claims are drawn towards the same plant or parts thereof. The plant of both claims must have all the physiological and morphological characteristics of 93B87, seed of which has been deposited under the same ATCC Accession No. Applicant is required to cancel one of the claims, or amend the claim(s).

Claim Rejections - 35 USC § 112

7. Claims 23 and 45 remain and claims 6, 28, 29, 46-48, and 53-57 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention, for the reasons of record stated in the Office action mailed 29 July 2002 under item 11. Applicants traverse the rejection to claims 23 and 45 in the paper received 29 October 2002. Applicants' arguments have been fully considered but were not found persuasive.

Applicants argue that each of the claims recites two requirements: that 93B87 be an ancestor of the plant, and that the claimed plant be "capable of expressing a combination of at least two 93B87 traits" selected from a Markush grouping. Applicants argue that the recitation of "93B87" in front of the term traits clearly indicates that the traits must be originating from 93B87 (response, paragraph bridging pages 10-11). However, these issues were not raised in this rejection. Applicants also argue that the terminology of the adjectives is not unduly narrative and or imprecise as they characterize and positively recite the degree of expression of the particular traits within Tables 1-2 (response, paragraph bridging pages 10-11). However, the specification does not teach that the traits in Tables 1-2 can be described in this manner. Further, Table 1 states that there is outstanding resistance for Brown Stem Rot, whereas the claims stated very good resistance to Brown Stem Rot, for example. It is not clear if "excellent" or "good" resistance to Brown Stem Rot can also be considered "outstanding."

Applicants argue that the claims now indicate that the plants have 50% of the alleles of 93B87, and that the plants be able to express a combination of two traits of 93B87 (response,

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paragraph bridging pages 10-11). However, the recitation of "50% of its alleles" does not affect the issue raised in this rejection. That the claimed plants are to express a combination of two traits that are also expressed by 93B87 also does not overcome the rejection, as it is not clear what separates a plant having, for example, very good resistance to Brown Stem Rot from one that has good resistance. Applicants also argue that it is against the policy of the patent statutes to bar patent protection for inventions that are incapable of precise definition and assert that the terms in the claims are as precise as the subject matter of the invention permits (response, paragraph bridging pages 11-12). However, it remains unclear how one would differentiate, for example, good iron deficiency tolerance from outstanding iron deficiency tolerance.

In claims 6 and 28: there is improper antecedent basis for "protoplasts" in line 1 of the claims. It is suggested that the term be removed from the claims, and that a new claim be introduced directed towards protoplasts produced from the tissue culture of claims 5 or 27.

In claims 23, 45, 55, 56: the recitations "derived at least 50% of its alleles" in claims 23 and 45, "deriving 50% of its alleles" in claim 55, and "deriving at least about 50% of its alleles" in claim 56 render the claims indefinite. It is not clear what is meant by "derived" and "deriving." Have the alleles been transformed into the claimed plants, did the claimed plants inherit the alleles, etc.?

In claim 29: the claim recites the recitation "the tissue culture of claim 24". There is insufficient antecedent basis for this limitation in the claim or claim 24.

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In claim 46: the claim is indefinite because the recitation "comprising" in line 1 does not clearly indicate how many crosses are to be performed by the method. It is suggested that the recitation --F1 hybrid-- be inserted in claim 46, lines 1 and 6, after "93B87-derived".

In claim 57: the recitation "further comprising applying double haploid methods" in lines 1-2 renders the claim indefinite. The recitation broadens the scope of parent claim 53, which only involves crosses and does not encompass any double haploid method. It is also not clear what double haploid method is being referred to.

In claim 53: the term "comprises" in part (a) of the claim renders it indefinite. It is not clear what obtaining a seed that "comprises" a plant means.

8. Claims 10, 12, 15-23, 32, 34, 37-45, and 47-49 remain and claims 8, 9, 30, 31, 46, and 50-57 are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention, for the reasons of record stated in the Office action mailed 29 July 2002 under item 12. Applicants traverse the rejection in the paper received 29 October 2002. Applicants' arguments have been fully considered but were not found persuasive.

Applicants argue that there is great deal in the specification as to culture techniques and breeding techniques and how one applies these techniques to plant 93B87 to generate derived plants or tissue cultures of the invention (response, page 12, 2nd full paragraph). However, methods of making a product do not describe the morphological and physiological traits of the product itself. Further, the claimed tissues cultures are not subject to this rejection.

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Applicants also argue that amended claims 23 and 45 recite that the plant has derived at least 50% of its alleles from 93B87 and must possess at least two of several enumerated traits that must be from 93B87. Applicants argue that each claimed plant that is created using Applicants' unique and novel material would possess the unique germplasm that forms the invention (response, page 12, 2nd full paragraph). However, the specification does not describe any of the alleles of 93B87, and does not describe which of the alleles of any of the claimed progeny plants were inherited from 93B87. The specification does not correlate any function with any of the alleles of 93B87. The specification does not describe the alleles that govern the expression of any of the traits listed in the claims. As the alleles of 93B87 are not described, neither are the alleles of its descendents. Further, as plant 93B87 is crossed with other plants to produce the claimed progeny plants, the progeny plants will not possess all of the unique germplasm that forms 93B87. Furtherstill, the claimed plants will also inherit 50% of its alleles from the other parent, and no description is provided at all concerning any of their morphological and physiological traits.

Applicants further argue that the written description requirement is met in light of the deposit of 93B87 in a public depository. However, for the reasons stated above and in the previous Office action, the morphological and physiological description of 93B87 does not provide any information concerning all of the morphological and physiological descriptions of hybrid progeny of 93B87. Further, the specification does not describe any double haploid methods.

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9. Claims 10, 17, 21, 22, 32, 40, 44, 49, 50, and 52 remain rejected under 35 U.S.C. 102(e) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Steiger et al. (U.S. Patent No. 6,153,816), for the reasons of record stated in the Office action mailed 29 July 2002 under item 14. Applicants traverse the rejection in the paper received 29 October 2002. Applicants' arguments have been fully considered but were not found persuasive.

Applicants argue that 93B87 and 93B35, taught by Steiger et al., are not the same inventions nor are their differences due to minor morphological variations. Applicants submit that it is the unique combination of alleles of 93B87 that is being claimed, not the trait, and that the claimed plant cannot be rendered obvious or lacking novelty as it possesses a unique combination of traits which confer a unique combination of genetics (response, page 14, 2nd full paragraph). However, the claims that remain rejected do not encompass plant 93B87. The combination of genetics that give rise to all of the traits of 93B87 do not give rise to all of the traits expressed by the claimed plants, as the plants are not 93B87.

Applicants argue that it must be recognized that the hybrids provided by 93B87 are themselves an unusual and non-obvious result of a combination of previously unknown and non-obvious genetics (response, paragraph bridging pages 14-15). However, the claimed plants also have other plants as ancestors, and many other plants in the prior art express many of the traits that are also expressed by 93B87. As one cannot distinguish any alleles or traits of the claimed plants that may have been derived from 93B87, from those derived from other ancestors, one cannot distinguish the claimed plants from that taught by the reference.

Applicants argue that several morphological and physiological characteristics of soybean 93B87 are either different from or not present in 93B35, and that varieties created using 93B87

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as one of the parents are not anticipated by varieties made using 93B85 as a parent (response, page 15, 1st to 3rd full paragraphs). However, one cannot distinguish a plant that possesses traits that were derived from 93B87 versus other plants in its pedigree, because one cannot distinguish the alleles of 93B87 from those of other plants. As the claimed plants can have other ancestors that also express the one or more traits that are expressed by 93B87, one cannot distinguish whether the trait was derived from 93B87 or any other ancestor. One cannot distinguish the claimed plants from the prior art plant.

Applicants cite *In re Thorpe* and argue that this is not the same plant physiologically or morphologically as the cited prior art as can be evidenced by one skilled in the art through analysis of the data tables in each. Applicants argue that hindsight reconstruction was used (response, page 16, 2nd full paragraph). However, the claims drawn toward variety 93B87 are no longer rejected. The claims that remain rejected do not recite any particular trait that the plants must absolutely express, and can express any traits, including those that are not expressed by 93B87. Hindsight reconstruction was not used as the claims are rejected over a single reference.

Applicants argue that plant 93B35 does not exhibit the characteristics of plant 93B87, and that plant 93B87 deserves to be considered as a new and non-obvious composition (response, page 17, 2nd full paragraph to page 18, 1st full paragraph). However, claims drawn to seed designated 93B87 and the plant produced from growing that seed are not encompassed by the rejection.

10. Claims 1-5, 7, 11, 13, 14, 25-27, 33, 35, and 36 are allowed. Claims 6, 8-10, 12, 15-23, 28-32, 34, and 37-57 are rejected. Claims 24 and 58 are objected.

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Contact Information

Any inquiry concerning this or earlier communications from the examiner should be directed to Ashwin Mehta, whose telephone number is 703-306-4540. The examiner can normally be reached on Mondays-Thursdays and alternate Fridays from 8:00 A.M to 5:30 P.M. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Amy Nelson, can be reached at 703-306-3218. The fax phone numbers for the organization where this application or proceeding is assigned are 703-305-3014 and 703-872-9306 for regular communications and 703-872-9307 for After Final communications. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0196.

A.M.
January 6, 2003



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